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L21 ANSWER 1 OF 13
                        MEDLINE
AN
     97156866
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     97156866
                PubMed ID: 9003247
TТ
     Modulation of the alpha 2
     macroglobulin receptor/low density lipoprotein receptor
     related protein by interferon-gamma in human astroglial cells.
     Businaro R; Fabrizi C; Persichini T; Starace G; Ennas M G; Fumagalli L;
ΑU
     Lauro G M
     Dipartimento di Scienze Cardiovascolari e Respiratorie, Universita La
CS
     Sapienza, Rome, Italy.
     JOURNAL OF NEUROIMMUNOLOGY, (1997 Jan) 72 (1) 75-81.
SO
     Journal code: 8109498. ISSN: 0165-5728.
CY
     Netherlands
     Journal; Article; (JOURNAL ARTICLE)
DT
LA
     English
FS
     Priority Journals
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     GENBANK-X55077
EΜ
     199702
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     Last Updated on STN: 19970305
     Entered Medline: 19970219
L21 ANSWER 2 OF 13
                        MEDLINE
ΔN
     95072001
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     95072001
                PubMed ID: 7526898
DN
TI
     Presence of LDL receptor-related protein/alpha 2-
     macroglobulin receptors in macrophages of
     atherosclerotic lesions from cholesterol-fed New Zealand and heterozygous
     Watanabe heritable hyperlipidemic rabbits.
ΑU
     Daugherty A; Rateri D L
CS
     Cardiovascular Division, Washington University School of Medicine, St.
     Louis, MO 63110.
NC.
     HL-17646 (NHLBI)
     ARTERIOSCLEROSIS AND THROMBOSIS, (1994 Dec) 14 (12) 2017-24.
SO
     Journal code: 9101388. ISSN: 1049-8834.
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LA
     English
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     Priority Journals
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     199412
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     Entered STN: 19950116
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     Entered Medline: 19941230
L21 ANSWER 3 OF 13
                        MEDLINE
     94144688
                  MEDLINE
AN
DN
     94144688
                PubMed ID: 7508685
TI
     Expression of alpha 2-macroglobulin
     receptor/low density lipoprotein receptor-related protein and the
     39-kd receptor-associated protein in human trophoblasts.
     Coukos G; Gafvels M E; Wisel S; Ruelaz E A; Strickland D K; Strauss J F
ΑIJ
     3rd; Coutifaris C
CS
     Department of Obstetrics and Gynecology, University of Pennsylvania School
     of Medicine, Philadelphia.
NC
     GM-42581 (NIGMS)
     HD-29946 (NICHD)
     AMERICAN JOURNAL OF PATHOLOGY, (1994 Feb) 144 (2) 383-92.
SO
     Journal code: 0370502. ISSN: 0002-9440.
CY
     United States
DT
     Journal; Article; (JOURNAL ARTICLE)
LA
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FS
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     199403
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ED Entered STN: 19940330

Last Updated on STN: 19960129 Entered Medline: 19940317

- L21 ANSWER 4 OF 13 MEDLINE
- AN 92366474 MEDLINE
- DN 92366474 PubMed ID: 1502154
- TI Low density lipoprotein receptor-related protein/alpha 2
  -macroglobulin receptor is an hepatic receptor for
  tissue-type plasminogen activator.
- AU Bu G; Williams S; Strickland D K; Schwartz A L
- CS Edward Mallinckrodt Department of Pediatrics, Washington University School of Medicine, St. Louis, MO 63110.
- NC HL08467 (NHLBI) HL17646 (NHLBI)
- SO PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, (1992 Aug 15) 89 (16) 7427-31.

  Journal code: 7505876. ISSN: 0027-8424.
- CY United States
- DT Journal; Article; (JOURNAL ARTICLE)
- LA English
- FS Priority Journals
- EM 199209
- ED Entered STN: 19920925

Last Updated on STN: 19980206 Entered Medline: 19920915

- L21 ANSWER 5 OF 13 CAPLUS COPYRIGHT 2003 ACS
- AN 1999:180032 CAPLUS
- DN 131:13513
- TI Do P-glycoprotein and major vault protein (MVP/LRP) expression correlate with in vitro daunorubicin resistance in acute myeloid leukemia?
- AU Broxterman, H. J.; Sonneveld, P.; Pieters, R.; Lankelma, J.; Eekman, C. A.; Loonen, A. H.; Schoester, M.; Ossenkoppele, G. J.; Lowenberg, B.; Pinedo, H. M.; Schuurhuis, G. J.
- CS Department of Medical Oncology, University Hospital Vrije Universiteit, Amsterdam, 1007 MB, Neth.
- SO Leukemia (1999), 13(2), 258-265 CODEN: LEUKED; ISSN: 0887-6924
- PB Stockton Press
- DT Journal
- LA English
- RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L21 ANSWER 6 OF 13 CAPLUS COPYRIGHT 2003 ACS
- AN 1997:188130 CAPLUS
- DN 126:275326
- TI Low density lipoprotein receptor-related protein modulates the expression of tissue-type plasminogen activator in human colon fibroblasts
- AU Hardy, Medora M.; Feder, Joseph; Wolfe, Richard A.; Bu, Guojun
- CS Dep. of Cell Culture and Biochemistry, Monsanto Co., St. Louis, MO, 63167, USA
- SO Journal of Biological Chemistry (1997), 272(10), 6812-6817 CODEN: JBCHA3; ISSN: 0021-9258
- PB American Society for Biochemistry and Molecular Biology
- DT Journal
- LA English
- L21 ANSWER 7 OF 13 CAPLUS COPYRIGHT 2003 ACS
- AN 1997:82858 CAPLUS
- DN 126:169578
- TI The low-density lipoprotein receptor-related protein, a multifunctional apolipoprotein E receptor, modulates hippocampal neurite

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development
ΑU
     Narita, Masaaki; Bu, Guojun; Holtzman, David M.; Schwartz, Alan L.
     Department of Pediatrics, Washington University School of Medicine, St.
CS
     Louis, MO, 63110, USA
     Journal of Neurochemistry (1997), 68(2), 587-595
SO
     CODEN: JONRA9; ISSN: 0022-3042
     Lippincott-Raven
PB
DT
     Journal
     English
LA
     ANSWER 8 OF 13 CAPLUS COPYRIGHT 2003 ACS
L21
AN
     1996:717281 CAPLUS
DN
     126:29495
     Apolipoprotein E-containing high density lipoprotein promotes neurite
TI
     outgrowth and is a ligand for the low density lipoprotein receptor-related
ΑU
     Fagan, Anne M.; Bu, Guojun; Sun, Yuling; Daugherty, Alan; Holtzman, David
CS
     Dep. Neurology, Washington Univ. School Medicine, St. Louis, MO, 63110,
     Journal of Biological Chemistry (1996), 271(47), 30121-30125
SO
     CODEN: JBCHA3; ISSN: 0021-9258
PΒ
     American Society for Biochemistry and Molecular Biology
     Journal
DT
LA
     English
     ANSWER 9 OF 13 USPATFULL
L21
       1999:141305 USPATFULL
AN
TI
       Adjuvant for transcutaneous immunization
IN
       Glenn, Gregory M., Bethesda, MD, United States
       Alving, Carl R., Bethesda, MD, United States
       The United States of America as represented by the U.S. Army Medical
PA
       Research & Material Command, Washington, DC, United States (U.S.
       government)
PΙ
       US 5980898
                               19991109
AΙ
       US 1997-896085
                               19970717 (8)
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DT
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              424/275.100; 530/363.000; 530/403.000
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              424/184.100
              424/085.100; 424/240.100; 424/241.100; 424/275.100; 424/449.000;
       NCLS:
              424/450.000; 530/363.000; 530/403.000
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       530/363; 530/403
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 10 OF 13 USPATFULL
L21
ΑN
       1999:67356 USPATFULL
ΤI
       Parasitic helminth p22U proteins
IN
       Tripp, Cynthia Ann, Ft. Collins, CO, United States
       Frank, Glenn Robert, Ft. Collins, CO, United States
       Grieve, Robert B., Ft. Collins, CO, United States
PΑ
       Heska Corporation, Ft. Collins, CO, United States (U.S. corporation)
       Colorado State University Research Foundation, Ft. Collins, CO, United
       States (U.S. corporation)
ΡI
       US 5912337
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ΑI
       US 1995-460428
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       US 1993-3389, filed on 12 Jan 1993, now abandoned And Ser. No. US
       1991-654226, filed on 12 Feb 1991, now abandoned , said Ser. No. US 3257
       which is a continuation-in-part of Ser. No. US 654226 , said Ser. No. US
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       550/388.2; 536/23.7
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L21
     ANSWER 11 OF 13 USPATFULL
AN
       1998:30893 USPATFULL
ΤI
       Non-mammalian DNA virus to express an exogenous gene in a mammalian cell
IN
       Boyce, Frederick M., Belmont, MA, United States
PA
       The General Hospital Corporation, Boston, MA, United States (U.S.
       corporation)
PΙ
       US 5731182
                               19980324
AΙ
       US 1995-486341
                               19950607 (8)
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L21
     ANSWER 12 OF 13 USPATFULL
AN
       97:104113 USPATFULL
       Parasitic helminth p4 proteins
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IN
       Tripp, Cynthia Ann, Ft. Collins, CO, United States
       Frank, Glenn Robert, Ft. Collins, CO, United States
       Grieve, Robert B., Ft. Collins, CO, United States
       Heska Corporation, Ft. Collins, CO, United States (U.S. corporation)
PA
       Colorado State University Research Foundation, Ft. Collins, CO, United
       States (U.S. corporation)
ΡI
       US 5686080
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       US 1995-459019
                               19950602 (8)
AΙ
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       No. US 1993-3257, filed on 12 Jan 1993, now abandoned Ser. No. Ser. No.
       US 1993-3389, filed on 12 Jan 1993, now abandoned And Ser. No. US
       1991-654226, filed on 12 Feb 1991, now abandoned , said Ser. No. US
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                                                           - which is a
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              435/071.100; 530/350.000
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       435/69.3; 435/71.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 13 OF 13 USPATFULL
L21
       97:52122 USPATFULL
AN
TI
       Nucleic acid molecules encoding novel parasitic helminth proteins
IN
       Tripp, Cynthia Ann, Ft. Collins, CO, United States
       Frank, Glenn Robert, Ft. Collins, CO, United States
       Grieve, Robert B., Ft. Collins, CO, United States
PA
       Heska Corporation, Ft. Collins, CO, United States (U.S. corporation)
       Colorado State University Research Foundation, Ft. Collins, CO, United
       States (U.S. corporation)
ΡI
       US 5639876
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ΑI
       US 1993-109391
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       abandoned And Ser. No. US 1991-654226, filed on 12 Feb 1991, now
       abandoned , said Ser. No. US
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       NCLS:
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       ICM: C07H019-00
       ICS: C07H021-04; C12P021-04; A61K039-00
EXF
       536/27; 536/22.1; 536/23.1; 536/23.7; 424/265.1; 424/269.1; 424/184.1;
       424/185.1; 424/165.1; 424/266.1; 435/69.1; 435/69.3; 435/71.1
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
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Very low density lipoprotein receptor from mammary gland and mammary epithelial cell lines binds and mediates endocytosis of M(r) 40,000 receptor associated protein.

Simonsen AC, Heegaard CW, Rasmussen LK, Ellgaard L, Kjoller L, Christensen A, Etzerodt M, Andreasen PA.

Department of Molecular Biology, University of Aarhus, Denmark.

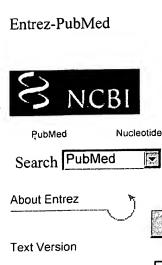
We here report that the M(r) 40,000 receptor associated protein (RAP), previously found to bind to alpha 2-macroglobulin receptor/low density lipoprotein receptor related protein (alpha 2MR/LRP) and glycoprotein 330 (gp330), binds to an M(r) 105,000 membrane protein from bovine mammary gland, human mamma tumors and mammary epithelial cell lines. We have purified this protein from bovine and human sources. N-terminal amino acid sequencing and immunoblotting analyses showed that the protein was identical or closely related to very low density lipoprotein receptor (VLDL-R). Experiments with the human mamma carcinoma cell line MCF-7 showed that this receptor was able to mediate an efficient endocytosis of RAP. These novel findings strongly suggest that RAP functions as a modulator of ligand binding to VLDL-R, similarly to alpha 2MR/LRP and gp330.

PMID: 7957939 [PubMed - indexed for MEDLINE]

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macroglobulin receptor/low density lipoprotein receptorrelated protein. Multiple regulatory sites for 39-kDa receptor-

A novel mechanism for controlling the activity of alpha 2-

Biochemistry Laboratory, American Red Cross, Rockville, Maryland 20855.

The alpha 2-macroglobulin receptor/low density lipoprotein receptor-related protein (alpha 2MR/LRP) consists of two polypeptides, 515 and 85 kDa, that are noncovalently associated. A 39-kDa polypeptide, termed the receptor-associated protein (RAP), interacts with the 515-kDa subunit after biosynthesis of these molecules and remains associated on the cell surface. This molecule regulates ligand binding of alpha 2MR/LRP (Herz, J., Goldstein, J. L., Strickland, D. K., Ho, Y. K., and Brown, M. S. (1991) J. Biol. Chem. 266, 21232-21238). Titration and binding studies indicate that RAP binds to two equivalent binding sites on alpha 2MR/LRP, with a KD of 14 nM. Heterologous ligand displacement experiments demonstrated that RAP completely inhibits the binding of 125I-activated alpha 2M to human fibroblasts and to the purified alpha 2MR/LRP, with a Ki of 23 and 26 nM, respectively. A direct correlation between the degree of binding of RAP to the receptor and the degree of ligand inhibition was observed, indicating that as the RAP binding sites are saturated, alpha 2MR/LRP loses its ability to bind ligands. Thus, the amount of RAP bound to alpha 2MR/LRP dictates the level of receptor activity. A model is proposed in which alpha 2MR/LRP contains multiple ligand binding sites, each regulated by a separate RAP site.

PMID: 1374383 [PubMed - indexed for MEDLINE]

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Kancha RK, Hussain MM.

Department of Pathology, Allegheny University of the Health Sciences, Philadelphia, PA 19129, USA.

The multifunctional low density lipoprotein receptor-related protein/alpha 2macroglobulin receptor (LRP) binds and degrades several ligands involved in protease and lipoprotein metabolism. We previously reported that nickel (Ni2+) specifically inhibits the binding of activated alpha 2-macroglobulin (alpha 2 M\*) at 4 degrees C to LRP and had no effect on the binding of other ligands to the receptor (Hussain et al. (1995) Biochem. 34, 16074-16081). In the current investigation, we have examined the effect of Ni2+ on the catabolism of 125 I-labeled alpha 2M\*, receptor-associated protein (RAP) and lactoferrin at physiologic temperatures by fibroblasts. Nickel completely inhibited the degradation of alpha 2M\* over a wide range of concentrations (0.3-2.4 nM); 50% inhibition for the degradation of 1.2 nM alpha 2M\* was observed at 0.5 mM Ni2+. Furthermore, nickel inhibited the binding, internalization and degradation of 125I-alpha 2M\* in a dose- and time-dependent manner. In contrast, the degradation of several concentrations of 125I-RAP by fibroblasts was not affected by different amounts of Ni2+ for various times. Similarly, Ni2+ did not inhibit the degradation of lactoferrin either before or after treating the cells with heparitinase to remove cell-surface proteoglycans. The degradation of lactoferrin was, however, inhibited by the RAP indicating that lactoferrin degradation was mediated by the LRP. These data suggest that Ni2+ is a specific inhibitor for the degradation of alpha 2M\*.

PMID: 9060994 [PubMed - indexed for MEDLINE]

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